

Follow-up Action on Occurrence Report

ACCIDENT TO RAF 2000 GTX-SE, G-CBAG, AT BLACK NOTLEY, ESSEX ON 17 MAY 2002
(GYROPLANE CRASHED DURING FLIGHT)

CAA FACTOR NUMBER : F34/2003
FACTOR PUBLICATION DATE : 14 October 2003
OPERATOR : Private
CAA OCCURRENCE NUMBER : 2002/03144
AAIB REPORT : Bulletin 9/2003

SYNOPSIS

(From AAIB Report)

On the afternoon of the accident the pilot and his colleague had arranged to go for a flight together in G-BYDW. They took off in the middle of the afternoon from the farm strip at Rayne and spent about twenty minutes flying in the local area. The pilot then took his colleague's wife for a short flight, again in G-BYDW. On their return it was agreed that the pilot would fly once more with his colleague, but this time in his colleague's machine, G-CBAG. The pilot then went on to conduct some solo circuits in G-BYDW, whilst his friend got G-CBAG out of the hangar and completed a pre-flight check and engine warm up.

After landing from his solo flight the pilot put G-BYDW away before getting into the right hand seat of G-CBAG. His unqualified colleague occupied the left-hand seat, which on the RAF 2000 is usually occupied by the pilot flying the aircraft as the blade pre-rotator required during takeoff is only operable from this seat. They then taxied out and took off, flying back over the airfield before heading off in a southerly direction. A witness at the airfield later estimated the departure time as 1600 hrs. Witnesses reported seeing or hearing nothing unusual.

The weather that afternoon was described by witnesses as bright and sunny. Some described the wind as calm, but others estimated that there was a north-easterly wind of between 10-15 kts. One witness commented that whilst it had been generally calm, there had also been some gusts of wind. An aftercast from the Met Office indicated that there was a moderate south-easterly flow covering the area at the time of the accident, with winds up to 1,000 feet being generally easterly at 13 to 20 kt. Stansted Airport, 12 nm to the west of the accident site, had fine weather and an easterly wind of about 12 kt and Andrewsfield, located 4 nm to the north-west, also had an easterly wind of about 13 kt. No gusts were recorded in these reports. However, by convention, no gusts below 10 kt are required to be reported. Hence it is possible that, at times, the wind speed could have been gusting to just over 20 kts.

Several witnesses in the local area reported seeing a gyroplane at various times that afternoon. Most of these sightings were at the time when the pilot was flying G-BYDW. However, there were also some witnesses to the accident itself. These all reported seeing G-CBAG suddenly fall vertically to the ground, shedding parts as it fell, with some able to identify one of the rotors separating.

The aircraft seemed to have been flying normally up to this point, although one witness reported seeing the gyroplane lose height both shortly before and then again immediately before it started to fall. Descriptions of the height at which G-CBAG was flying varied, but it was probably between 500 and 1,000 feet.

There were also varying eyewitness descriptions about the engine noise. Whilst all agreed there had been engine noise up to the point where the aircraft had dropped, there were differences in the point at which witnesses heard the noise cut out. Some reported this to be when the gyroplane had started to fall, some reported it cutting out during the fall and others reported that the engine could be heard until the aircraft hit the ground.

On seeing the crash witnesses close by notified the emergency services and made their way to the accident site to offer what assistance they could. The emergency services were quickly at the scene. Both occupants sustained fatal injuries on impact.

FOLLOW UP ACTION

The four Safety Recommendations, made by the AAIB following their investigation, are reproduced below, together with the CAA's responses.

Recommendation 2003-01

It is recommended that the CAA should review the pitch stability requirements of BCAR Section 'T' in the light of current research, and amend the Requirement as necessary. The CAA should consider the need for an independent qualified pilot assessment of the handling qualities of different gyroplane types currently approved for the issue of a Permit to Fly against the standards of BCAR Section T, as amended.

CAA Response

The CAA accepts this Recommendation.

The CAA will review the pitch stability requirements of BCAR Section T in the light of current research and introduce amendments, where found to be appropriate. This review will be completed by 31 November 2003.

The CAA will, by 31 December 2003, also consider the need for an independent qualified pilot assessment of the handling qualities of different gyroplane types currently approved for the issue of a Permit to Fly against the standards of BCAR Section T, as amended.

CAA Status - Open

Recommendation 2003-02

It is recommended that the CAA should consider retrospectively assessing all gyroplane types currently on the UK register for acceptable pitch stability characteristics.

CAA Response

The CAA accepts this Recommendation.

The CAA will, by 31 December 2003, consider retrospectively assessing all gyroplane types currently on the UK register for acceptable pitch stability characteristics.

CAA Status - Open

Recommendation 2003-03

It is recommended that the CAA should assess the RAF 2000 for compliance with the requirements of BCAR Section 'T', as amended, and, if necessary, require appropriate modification to achieve compliance.

CAA Response

The CAA accepts this Recommendation.

The CAA will, within one year of the completion of amendments to BCAR Section T, assess the RAF 2000 for compliance with the requirements of BCAR Section 'T', as amended, and, if necessary, require appropriate modification to achieve compliance.

CAA Status - Open

Recommendation 2003-04

It is recommended that the CAA consider the introduction of a wind and gust speed limitation for inexperienced autogyro pilots, similar to that already in effect for inexperienced pilots of certain small helicopters.

CAA Response

CAA accepts this Recommendation.

On 20th January 2003, the CAA issued Mandatory Permit Directive 2003-001, applicable to RAF 2000 and RAF 2000 GTX-SE gyroplanes, which specifies wind and gust speed limitations for autogyro pilots with less than 40 hours on type.

CAA will, by 31 December 2003, consider the introduction of a wind and gust speed limitation for inexperienced autogyro pilots of other types on the UK Register, similar to that already in effect for inexperienced pilots of certain small helicopters.

CAA Status - Open